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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,078	04/30/2001	John R. Gustafson	K35A0878	4539

35219 7590 02/25/2003

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EXAMINER

ADDISON, KAREN B

ART UNIT PAPER NUMBER

2834

DATE MAILED: 02/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/846,078

Applicant(s)

GUSTAFSON ET AL.

Examiner

Karen B Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-19 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-19 and 21-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2834

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 4 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-4,6-13,16,18-19,21-28 is rejected under 35 U.S.C. 102(b) as being anticipated by (5,604,389) by Nitta (5,604,389).

Nitta discloses spindle motor (100) in figs.8-24 comprising: a spindle motor hub (52); a magnet (6) radially attached about the spindle motor hub; and a stator (1) including a stator rim (12) formed of at least two vertically stacked stator rim laminated layers (fig.21); a plurality of stator teeth (14) arrayed about and internally extending from the stator rim, and the stator teeth being sized to fit about the magnet in operable communication therewith. Wherein; the stator teeth (14) includes laminated layers having at least one reduced height stator tooth (fig13b), the reduced height stator tooth has fewer layer than the remainder of the stator teeth (fig.14), and the reduce height stator tooth being positionable adjacent to the head stack (7) assembly for the purpose allowing the head stack assembly to pivot over the reduced height stator tooth. Nitta also shows in fig.22 the reduce height stator tooth having distal shoes extending (A).

Referring to claims 6-13,21-28

Art Unit: 2834

Nitta discloses the stator teeth in fig.23 having at least one reduced height stator tooth having at least two reduced height stator laminated layers (upper C and lower D) horizontally off-set and vertically formed towards each and extends horizontally from the stator rim (12). Although, fig.23 shows an oblique view of the stator, it's inherent that the stator is identical on both sides. Therefore, the inner laminated layer between the upper and lower layer are horizontally offset from the inner laminated layers.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2,14-15,17 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta (5,604,389) in view of Morita (5930076).

As seen above, Nitta substantially discloses the claim invention. However, Nitta does not disclose the reduced height stator tooth having a width greater than the remainder of the stator teeth; and a reduce height stator tooth having laminating layers formed of a second thickness less than the first thickness.

Morita discloses a disk drive in fig.1-6 comprising: a spindle motor (25), having a reduce height stator tooth (52) having a width greater (w2) than a remainder of the stator teeth (fig.6) and a reduce height stator tooth having laminating layers formed to have second thickness (43) less than the first thickness (45) for the purpose of improving the

Art Unit: 2834

magnetic circuit characteristic. Therefore, it would be obvious to one having ordinary skill in the art at the time the invention was made to modify the spindle motor of Nitta with the stator of Morita for the purpose of improving the magnetic characteristic of the spindle motor with out increasing the stacking thickness of the motor core.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KBA
February 21, 2003



KAREN B. ADDISON
EXAMINER
FEBRUARY 21, 2003